HW 7: Shiny 1

David Gerard

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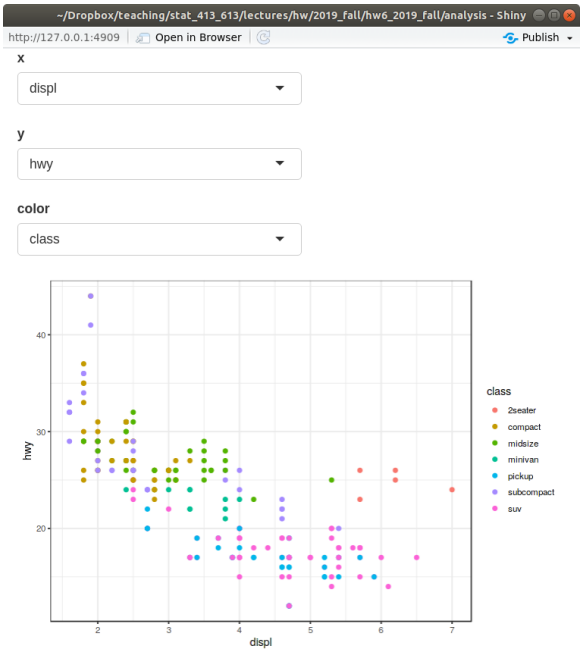
Instructions

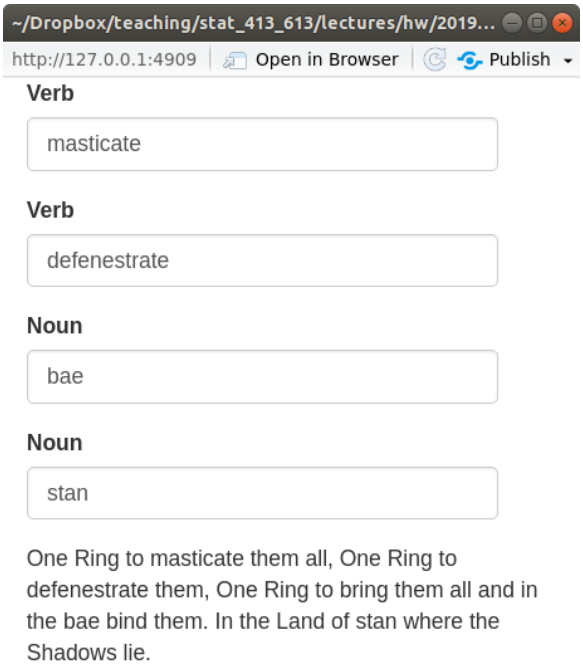
- Write your solutions in this starter file. You should modify the "author" field in the YAML header.
- Place all of your Shiny code in this file. But make sure you have `eval = FALSE` in your code-chunk options so that you don't end up running the Shiny apps in the HTML file you generate.
- Only commit R Markdown and HTML files (no PDF files). Make sure you have knitted to HTML for your final submission.
- **Make sure to commit each time you answer a question.**
- Only include the necessary code, not any extraneous code, to answer the questions.
- Learning objectives:
  - Practice simple Shiny layout design.
  - Practice developing simple Shiny Apps.

1. (3 pts) Create a Shiny app that takes as input three variables from the `mpg` dataset from the `ggplot2` package. It will make a scatterplot of two of the variables and color code by the third variable. Make the default variables the ones in the image below. Your app should look like this:



2. (3 pts) Create a Mad Libs Shiny App that takes as input 4 or 5 words and returns a paragraph where those words are populated inside specific locations of that paragraph. The inputs should be a part of speech (such as noun, verb, adjective, adverb, pronoun, preposition, conjunction, or interjection).

   Here is my example (but be creative with yours!):

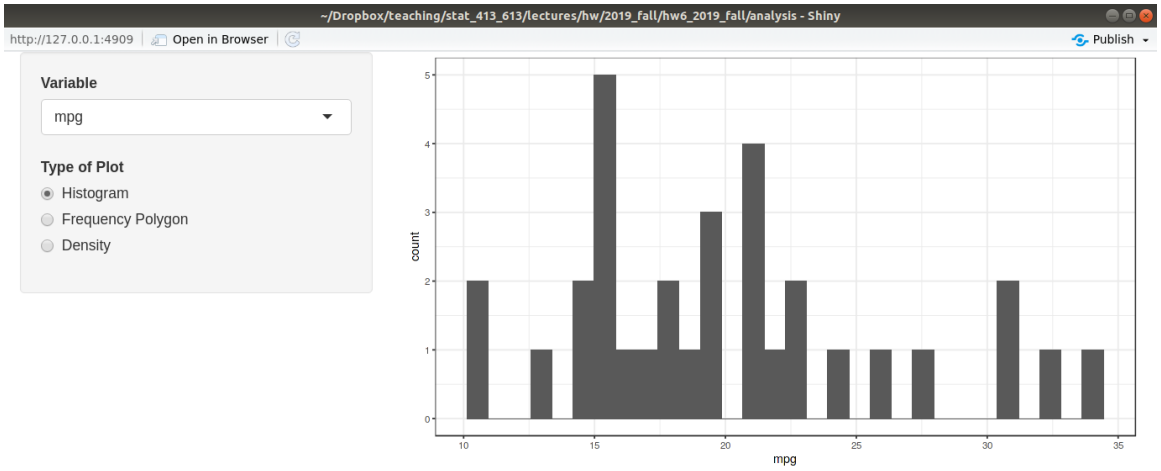


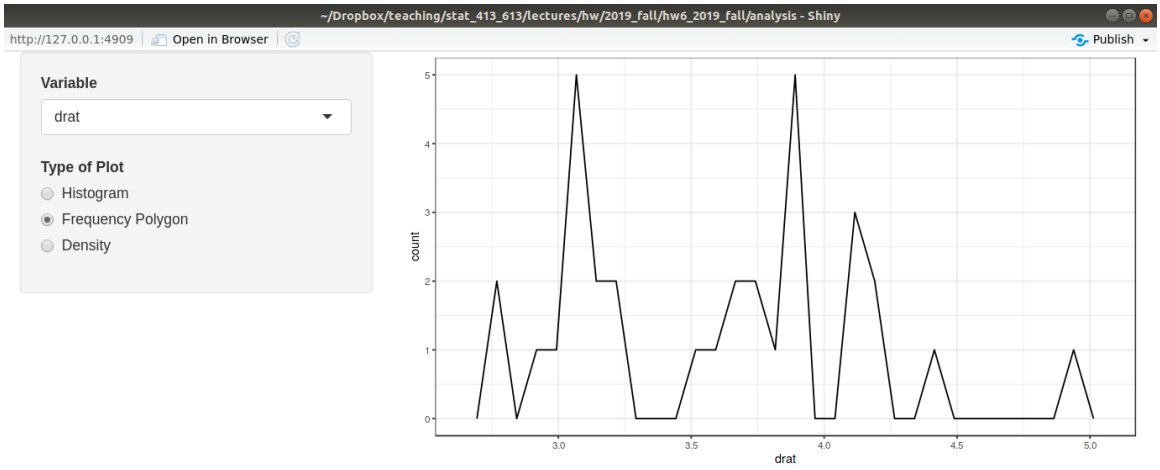
3. (3 pts) Create a Shiny app that takes as input the variable from the `mtcars` dataset to plot as well as the type of plot (histogram, density, or frequency polygon). Taking advantage of the modular nature of ggplot2 will make your life easier:

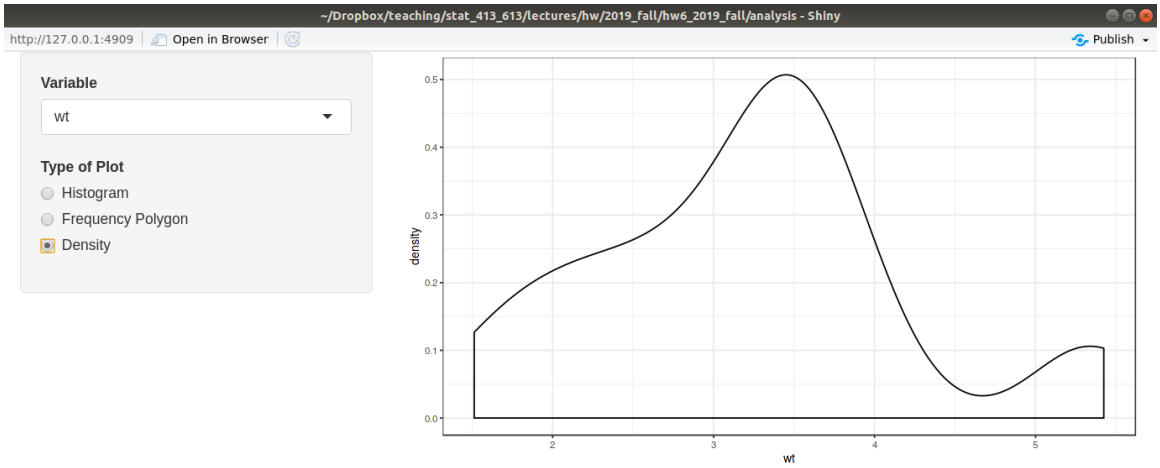
```
data("iris")
pl <- ggplot(iris, aes(x = Species))
pl

pl <- pl + geom_bar()
pl
```

Your app should look like this:




~/Dropbox/teaching/stat_413_613/lectures/hw/2019_fall/hw6_2019_fall/analysis - Shiny
http://127.0.0.1:4909
Open in Browser
Publish
Variable
drat
Type of Plot
Histogram
Frequency Polygon
Density
count
drat
0
1
2
3
4
5
3.0
3.5
4.0
4.5
5.0


~/Dropbox/teaching/stat_413_613/lectures/hw/2019_fall/hw6_2019_fall/analysis - Shiny
http://127.0.0.1:4909
Open in Browser
Publish
Variable
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Histogram
Frequency Polygon
Density
density
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5